

WHAT IS CLAIMED IS:

1. An apparatus, comprising:
 - a first buffer to store a set of data from a data source; and
 - a second buffer to store a subset of the data, wherein data is to be provided from one of the first and second buffers after data is overwritten in a corresponding location in the other buffer.
2. The apparatus of claim 1, wherein the first buffer is to receive the set of data from the data source, the subset of data is to be copied from the first buffer to the second buffer before data is overwritten in the first buffer, and a data requestor is to receive (i) the subset of data from the second buffer and (ii) the remaining data from the first buffer.
3. The apparatus of claim 2, wherein the subset of data is to be copied from the first buffer to the second buffer after the locations in the first buffer that correspond to the second buffer are filled.
4. The apparatus of claim 2, wherein a data ready signal is to be provided after the first buffer is filled.
5. The apparatus of claim 4, wherein the data ready signal is to be provided to an arbiter unit.

6. The apparatus of claim 2, further comprising:

a de-multiplexer to receive a block of data from the data source and to sequentially store the block of data in the first buffer, wherein the subset of data comprises a number of data blocks.

7. The apparatus of claim 1, wherein the apparatus is associated with at least one of: (i) a packet network, (ii) a local area network, (iii) an Ethernet network, (iv) a switch, and (v) a router.

8. The apparatus of claim 1, wherein the apparatus is associated with at least one of: (i) an application specific integrated circuit device, (ii) a field-programmable gate array device, and (iii) a custom integrated circuit.

9. A method, comprising:

storing in a first buffer a set of data from a data source;

storing in a second buffer a subset of the data; and

providing data from one of the first and second buffers after data is overwritten in a corresponding location in the other buffer.

10. The method of claim 9, wherein the first buffer receives the set of data from the data source, and further comprising:

copying the subset of data from the first buffer to the second buffer before data is overwritten in the first buffer.

11. The method of claim 10, wherein said providing comprises:
providing to a data requestor the subset of data from the second buffer and the remaining data from the first buffer.
12. The method of claim 10, wherein said copying is performed after the locations in the first buffer that correspond to the second buffer are filled.
13. The method of claim 10, further comprising:
providing a data ready signal after the first buffer is filled.
14. The method of claim 13, wherein the data ready signal is to be provided to an arbiter unit.
15. A method, comprising:
receiving m-bit blocks of data from a data source;
sequentially storing the blocks in a first buffer adapted to store N blocks;
after C blocks of data have been stored in the first buffer, copying the C blocks of data from the first buffer to a second buffer adapted to store C blocks, where C is less than N;
after N blocks of data have been stored in the first buffer, providing a data ready signal;
storing additional blocks from the data source in the first buffer by overwriting locations in the first buffer; and

providing to a data requestor the C blocks of data from the second buffer and the remaining blocks of data from the first buffer.

15. The method of claim 16, wherein C is associated with a maximum number of cycles between the time the data ready signal is provided and the time the data is provided to the data requestor.

17. An apparatus, comprising:

a storage medium having stored thereon instructions that when executed by a machine result in the following:

storing in a first buffer a set of data from a data source,

storing in a second buffer a subset of the data, and

providing data from one of the first and second buffers after data is overwritten in a corresponding location in the other buffer.

18. The apparatus of claim 17, wherein the first buffer receives the set of data from the data source, and executing the instructions further results in:

copying the subset of data from the first buffer to the second buffer before data is overwritten in the first buffer,

wherein said providing comprises providing to a data requestor the subset of data from the second buffer and the remaining data from the first buffer.

19. A switch, comprising:

an Ethernet interface; and

an arbitration system, including:

a first buffer to store a set of data from a data source, and

a second buffer to store a subset of the data, wherein data is to be provided from one of the first and second buffers after data is overwritten in a corresponding location in the other buffer.

20. The switch of claim 19, wherein the first buffer is to receive the set of data from the data source, the subset of data is to be copied from the first buffer to the second buffer before data is overwritten in the first buffer, and a data requestor is to receive (i) the subset of data from the second buffer and (ii) the remaining data from the first buffer.